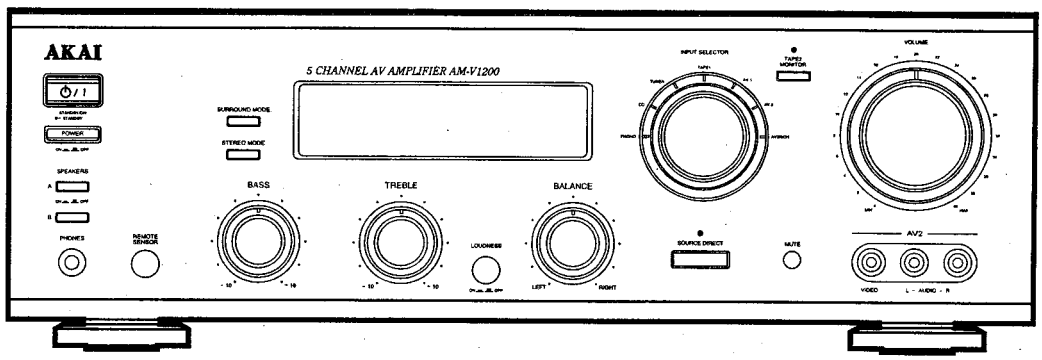
HA 4876

AKAI-01221

AKAI SERVICE MANUAL



5 CHANNEL AV AMPLIFIER

SPECIFICATIONS MODEL AM-V1200

AMPLIFIER

1 When SURROUND is "OFF"

Sensitivity and impedance
- PHONO : 2.5mV/47kΩ
- CD, TAPE, AV : 180mV/47kΩ

Frequency Response
- PHONO(RIAA STANDARD CURVE) : 50Hz ~ 15kHz(±1dB)
- CD, TAPE, AV : 20Hz ~ 50kHz

S/N Ratio
- PHONO(IHF-A) : 65dB
- CD, TAPE, AV(IHF-A) : 85dB

Power Output
- 50Watts, 1kHz, 8ohm, 0.1% THD

2 When SURROUND is "ON"

(4 Ch surround mode)
Power Output
- Front : 40+40Watts (1kHz, 0.5% THD, 8ohm)
- Rear : 40+40Watts (1kHz, 0.9% THD, 8ohm)

3 When Dolby Pro Logic is "ON"

Power Output
- Front : 40+40Watts(1kHz, 0.5% THD, 8ohm)
- Center : 40Watt (1kHz, 0.5% THD, 8ohm)
- Rear : 40+40Watts(1kHz, 0.9% THD, 8ohm)

GENERAL

Power consumption :
(at 1/8 output, 6% over voltage)

Power supply : AC 230V, 50Hz [E/B/S]
AC 120V, 60Hz [U.S.A/CANADA]

Dimension (W×H×D) : 430×142×355mm

Weight : 7.6kg (net)

Standard accessories

Remote control unit 1
Operator's manual 1

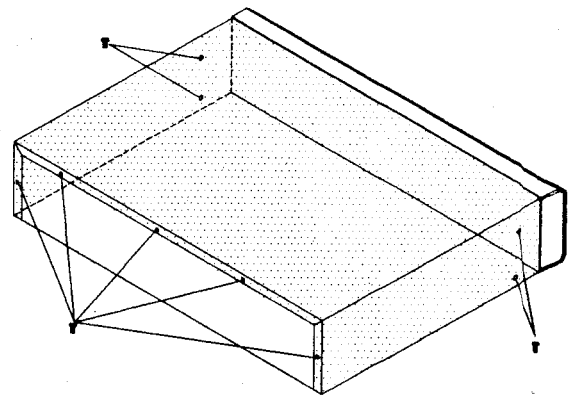
* For improvement purposes, specifications and design are subject to change without notice.

1221

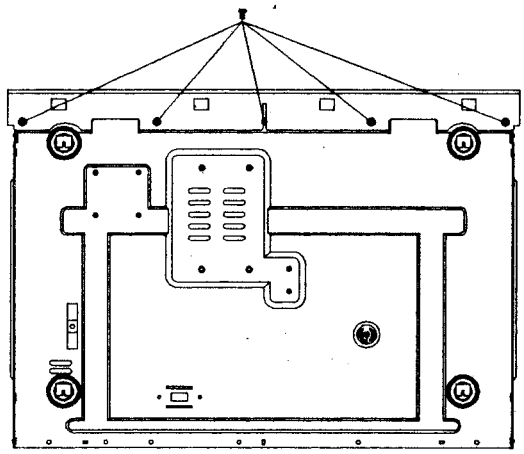
CONTENTS

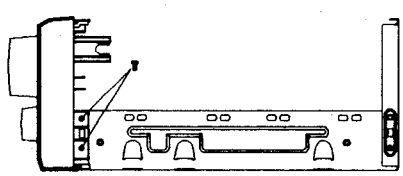
DISASSEMBLY

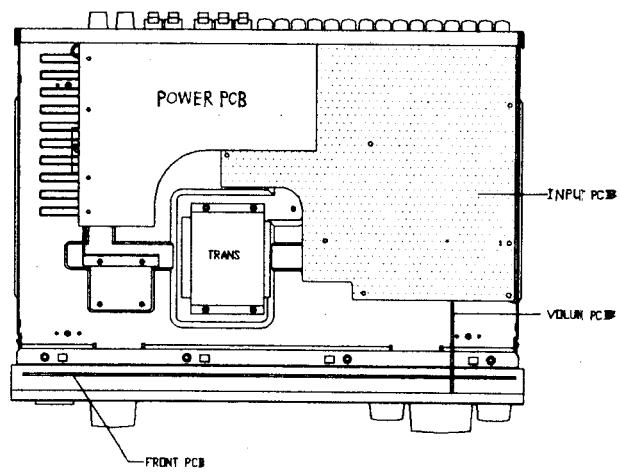
1)ROMOVAL OF TOP COVER



1)ROMOVAL OF TOP COVER



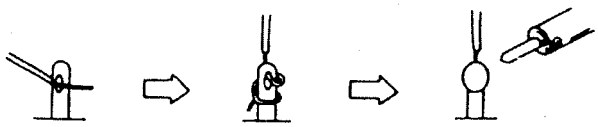




SAFETY INSTRUCTIONS

PRECAUTIONS DURING SERVICING

1. Parts identifide by the ⚠ (*)symbol parts are critical for safety. Replace only with parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation.
   These must also be replaced only with specifide replacements.
   Examples :RF converters, tuner units, antenna selectswitches, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially :
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulation Tape
   2) PVC tubing
   3) Spacers(insulating barriers)
   4) Insulation sheets for transistors
   5) Plastic screws for fixing micro switches
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.



6. Make sure that wires to do not contact heat producing parts (heat sinks, oxide metal film resistors, fusible resistors, etc.).
7. Check that replaced wires do not contact sharp edged or pointed parts.
8. Also check areas surrounding repaired locations.
9. Make sure that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

MAKE YOUR CONTRIBUTION TO PROTECT THE ENVIRONMENT

Used batteries with the ISO symbol for recycling as well as small accumulators (rechargeable batteries), mini-batteries (cells) and starter batteries should not be thrown into the garbage can.

Please leave them at an appropriate depot. All other household batteries can be thrown out with the household waste.

SAFETY CHECK AFTER SERVICING

After servicing, make measurements of leakage-current or resistance in order to determine that exposed parts are acceptably insulated from the supply circuit.

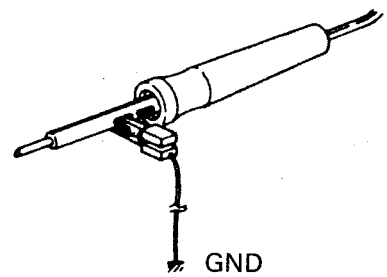
The leakage-current measurement should be done between accessible metal parts (such as chassis, ground terminal, microphone jacks, signal input/output connectors, etc.) and the earth ground through a resister of 1500 ohms paralleled with a 0.15 μF capacitor, under the unit's normal working conditions.

The leakage-current should be less than 0.5mA rms AC. The resistance measurement should be done between accessible exposed metal parts and power cord plug prongs with the power switch (if included) "ON". The resistance should be more than 2.2M Ohms.

PRECAUTIONS IN REPAIRING

When repairing or adjusting the unit, please note the following points.

1. Do not put excessive pressure on the mechanical part (operation part), including the pick-up block, as extremely high mechanical precision is required in these parts.
2. When the base is removed for repair adjustment, make sure that there are no metal obiects in the narrow gap between the P. C. board or the mecha parts and the base
3. The Micro-Computer and the CD signal processing ICs can be damaged by static electricity or leakage from a soldering iron during repairing. While soldering, please take the precautions against leakage as in the illustration.



4. Do not loosen any screws in the pick-up block. When handing the pick-up block, please refer to the points to NOTE when replacing the pick-up block.
5. Keep safety for hazardous invisible Laser Radiation, DO NOT watch the Laser Beam (Objective lens) directly.
6. Models for some countries, laser warning labels are affixed on the unit and inside of the unit, as shown below. Read it carefully for your safety, when repairing or adjusting the unit.

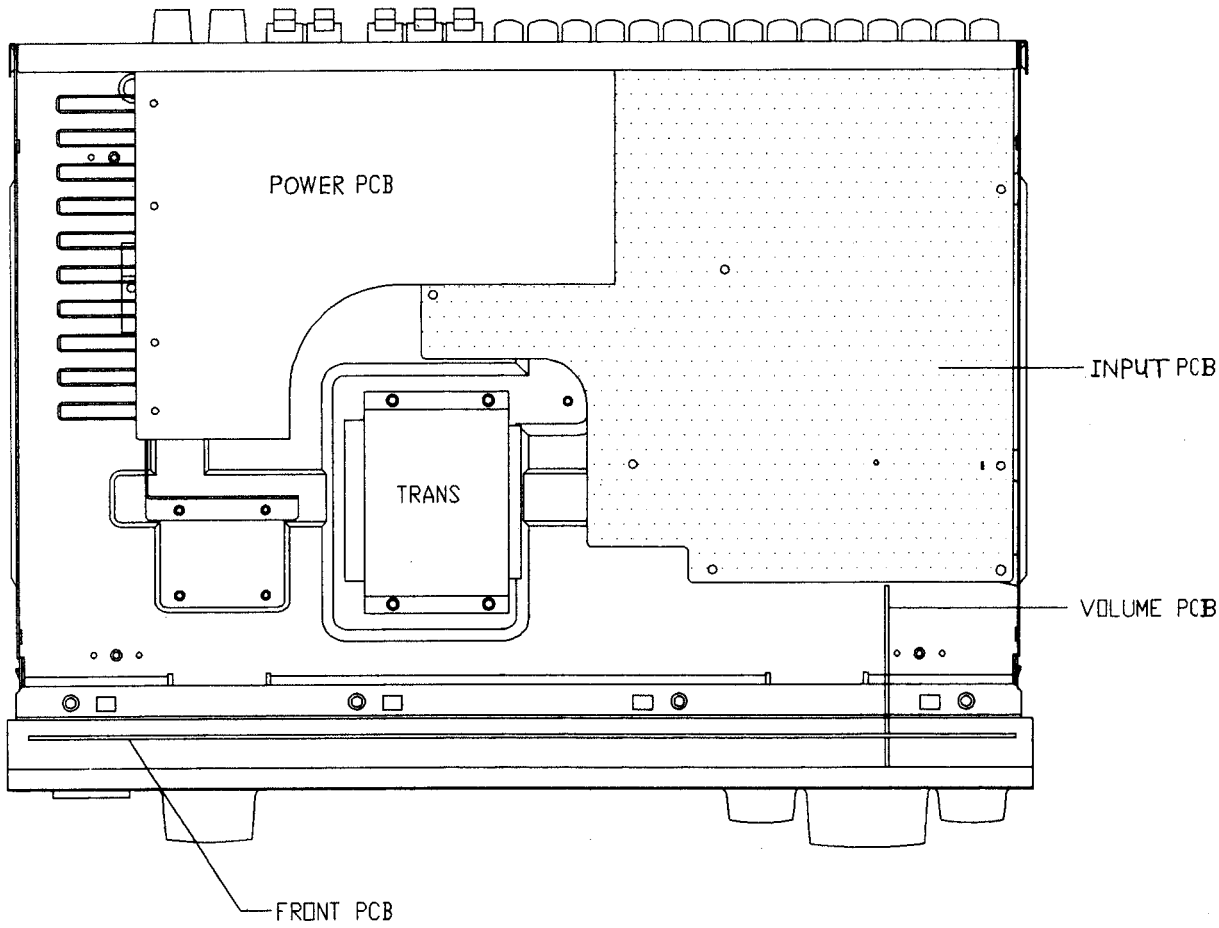
INFORMATION

SYMBOLS FOR PRIMARY DESTINATION

Primary destination of units are indicated with the following alphabet.

Symbols	Principal Destinations
B	UK
E	Europe (except UK)
S	Australia
U	Universal Area
Y*	Custom version

PRINCIPAL PARTS LOCATION

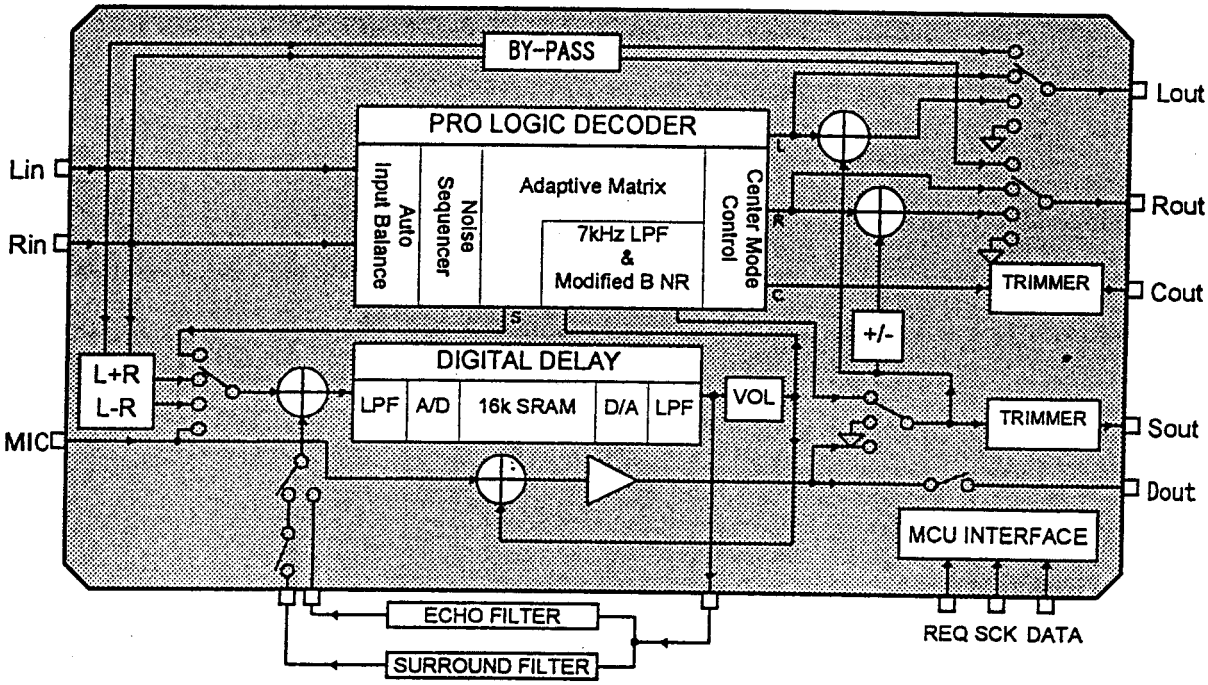


IC PIN FUNCTION (IC81: ANAM 1231A)

NO.	SYMBOL	I/O	DESCRIPTION
1	VDD	-	Power supply (+5V).
2	TAPE1/MD MUTE	O	TAPE1/MD mute control output.
3	AV1 MUTE	O	AV1 MUTE control output.
4	NC	-	Non connection.
5	SURROUND ON/OFF	O	SURROUND ON/OFF control output.
6	TAPE MONITOR LED	O	TAPE MONITOR LED control output.
7	PHONO LED	O	PHONO LED control output.
8	CD LED	O	CD LED control output.
9	TUNER LED	O	TUNER LED control output.
10	TAPE1 LED	O	TAPE1 LED control output.
11	AV1 LED	O	AV1 LED control output.
12	AV2 LED	O	AV2 LED control output.
13	DVD LED	O	DVD LED control output.
14	HEADPHONE IN	I	Headphone insert detect port.
15	PROTECT IN	I	Input from protection circuit.
16	SURROUND MODE KEY IN	I	Surround mode key input port.
17	STEREO KEY IN	I	STEREO Key input port.
18	SOURCE DIRECT KEY IN	I	Source DIRECT key input port.
19	TAPE MONITOR KEY IN	I	TAPE MONTOR key input port.
20	POWER KEY IN	I	POWER key input port.
21	MUTE KEY IN	I	MUTE key input port.
22	Vss	-	GND
23	AVss	-	GND
24	VAREF	-	A/D converter reference voltage.
25	VDD	-	Power supply (+5V).
26	BACK UP	I	Back-up mode control input.
27	TEST	-	GND.
28	JOG SW B	I	Encoder pulse input.
29	JOG SW A	I	Encoder pulse input.
30	Vss	-	GND.
31	X IN	I	8MHz crystal connecting terminal.
32	X OUT	O	8MHz crystal connecting terminal.
33	RESET	I	System reset pulse input.
34	REMOTE IN	I	Remote control signal input.
35	BUS IN	I	BUS control signal input.
36	BUS OUT	O	BUS control signal output.
37	NC	-	Non connection.
38	POWER ON/OFF	O	POWER ON/OFF control output.
39	POWER MUTE	O	POWER MUTE control output.
40	-20dB MUTE	O	-20dB MUTE control output.
41	FUNCTION MUTE	O	Function mute control output.
42	SOURCE DIRECT	O	Source direct control output.
43	VIDEO B CONTROL	O	Video function control output.
44	VIDEO A CONTROL	O	Video function control output.
45	REQ	O	REQ output.
46	NC	-	Non connection.
47	STROBE	O	STROBE output.
48	CLOCK	O	CLOCK output.
49	DATA	O	DATA output.
50	VFLP	-	(-27V) Negative power supply for FIP blinking.
51~60	GRIO	O	FIP GRIO control output.
61~82	SEGMENT	O	FIP SEGMENT control output.
83~90	NC	-	Non connection.
91	OPTION	O	Devices option port.
92~94	NC	-	Non connection
95	VR UP	O	Volume Down control outputs.
96	VR DOWN	O	Volume Down control outputs.
97	VR LED	O	Volume LED ON/OFF control output.
98	STAND BY LED	O	STAND BY LED ON/OFF control output.
99, 100	NC	-	Non connection.

IC BLOCK DIAGRAM (NJW1103)

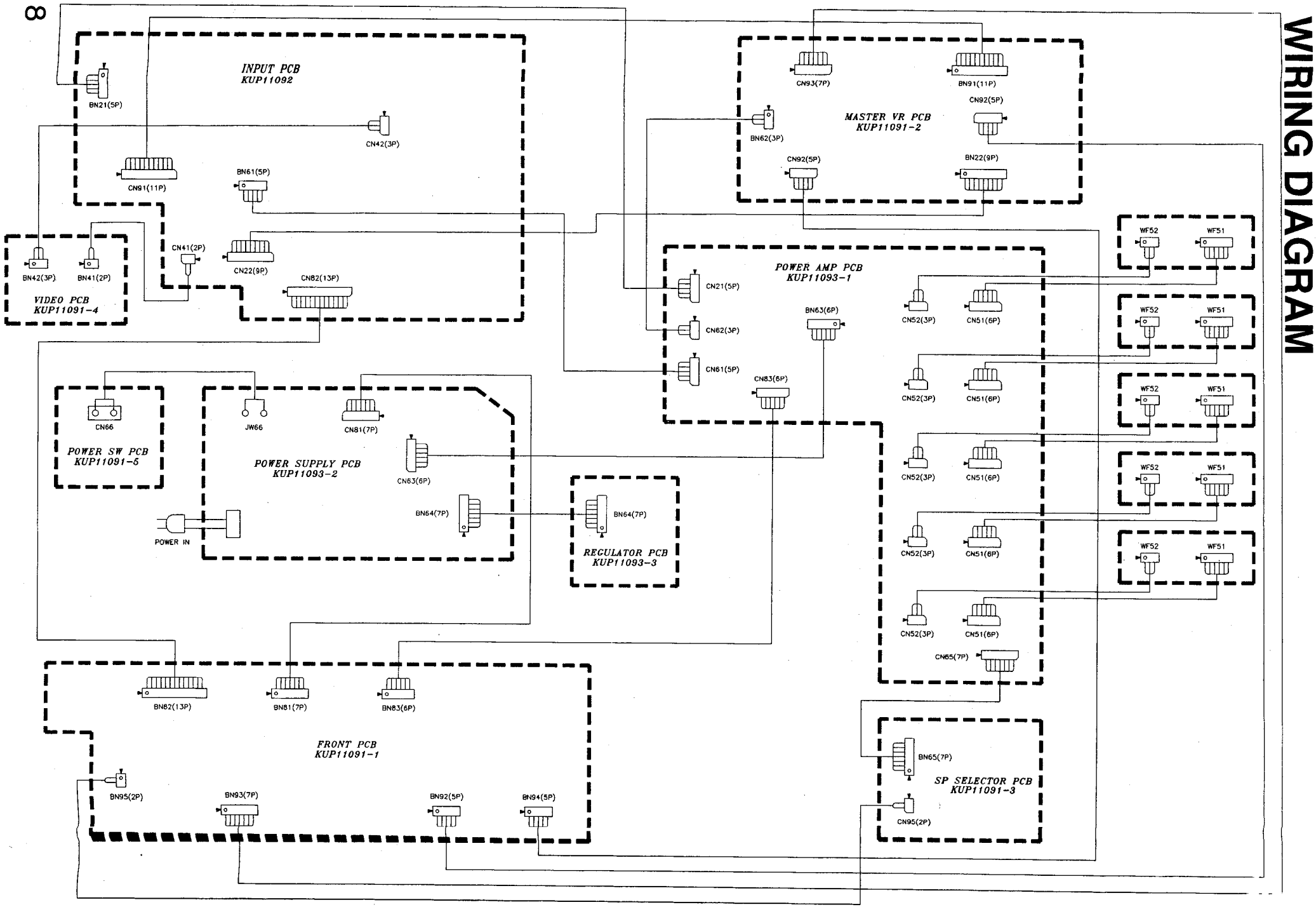
■SYSTEM BLOCK DIAGRAM



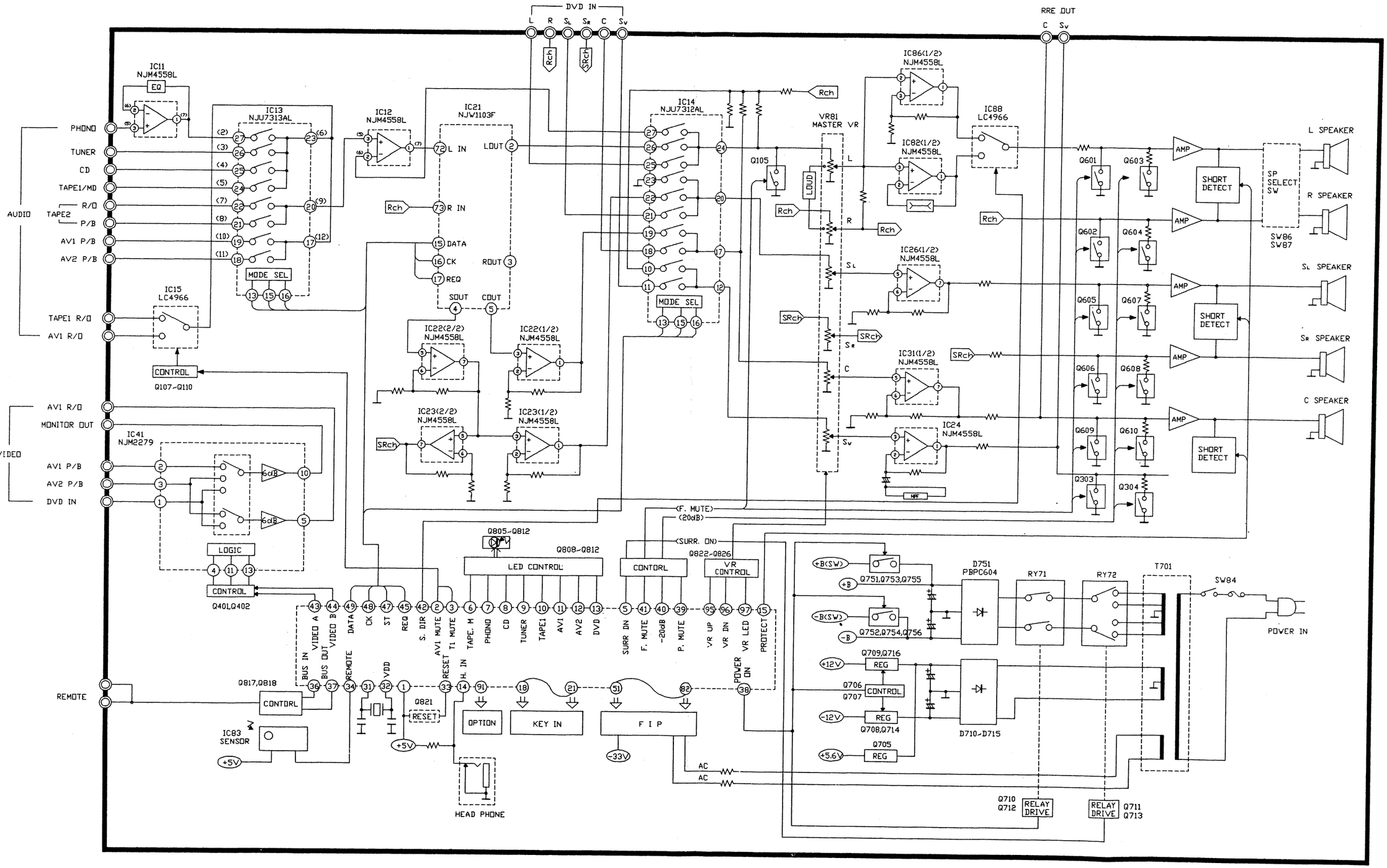
■ PIN CONNECTION

No.	Name	No.	Name	No.	Name	No.	Name
1	NGC1	21	XIN	41	VOL OUT	61	RLC4
2	LOUT	22	XOUT	42	DELAYSIG IN	62	RLC7
3	ROUT	23	DVSS	43	DELAYSIG OUT	63	RLC3
4	CT	24	AVSS	44	FBIN EC	64	RLC8
5	COUT	25	AVDD	45	FBIN SU	65	RLC6
6	ST	26	VREFD	46	S'OUT	66	LLI
7	SOUT	27	MIX OUT	47	DBIN	67	LBPF
8	CMC	28	DELAY IN	48	LPIN	68	RLI
9	SMRO	29	LPF1 IN1	49	DBC1	69	RBPF
10	SMRI	30	LPF1 IN2	50	DBC2	70	LT
11	AGND	31	LPF1 OUT	51	DBC3	71	RT
12	MIC IN	32	AD INT IN	52	PCS3	72	LIN
13	DVDD	33	AD INT OUT	53	PCS6	73	RIN
14	TEST CNT	34	AD CONT	54	PCS2	74	HOLDC
15	DATA	35	DA CONT	55	PCS5	75	AVCC
16	SCK	36	DA INT IN	56	PCS1	76	VREFA
17	REQ	37	DA INT OUT	57	PCS4	77	VREFG
18	LO1	38	LPF2 IN1	58	RLC5	78	IREF
19	LO2	39	LPF2 IN2	59	RLC2	79	NGC3
20	LO3	40	LPF2 OUT	60	RLC1	80	NGC2

WIRING DIAGRAM



BLOCK DIAGRAM



ACTIVE DEVICES VOLTAGE

TEST CONDITION

❶ Function : CD (No signal)
❷ Surround mode : OFF (STEREO)
❸ Unit : V

Ref. No.	E	C	B	Ref. No.	E	C	B
Q103, 104	0	0	0.7	Q714	-12.2	-20.6	-12.9
Q105, 106	0	0	-11.6	Q715	12.1	20.4	12.8
Q107	0	-12.1	0	Q751	41.8	43.6	42.3
Q108	0	-12.1	0	Q752	-41.3	-43.3	-42.1
Q109	-12.2	12.1	-12.1	Q753	43.6	43.6	43.2
Q110	-12.1	12.1	-12.1	Q754	-43.3	-43.3	-42.7
Q301	5	12	5.6	Q755	0	42.6	0.6
Q303, 304	0	0	-11.1	Q756	0.6	-42.4	0
Q401	5.2	0	4.8	Q757	0	10.4	0
Q402	5.2	0	4.8	Q758	11.4	-11.4	+11.4
Q501	0.6	-39	0	Q801	4.9	-12	4.9
Q502	0.6	-38.8	0	Q802	4.9	0	4.9
Q503	-39.6	-3.7	-38.9	Q803	4.9	-12	4.9
Q504	-40.3	-1.2	-38.8	Q804	4.9	0	4.9
Q505	0	0	0	Q805	4.9	4.9	0
Q506	-1.2	1.2	-0.6	Q806	4.9	0	4.6
Q507	0.6	40.7	1.2	Q807	4.9	4.9	0
Q508	-0.6	-41.6	-1.2	Q808	4.9	0	4.9
Q509	0	42.9	0.6	Q809	4.9	0	4.9
Q510	0	-42.8	-0.6	Q810	4.9	4.9	0
Q601, 602	0	0	-11.6	Q811	4.9	0	4.9
Q603, 604	0	0	-11.1	Q812	4.9	0	4.9
Q605, 606	0	0	0.7	Q813	4.9	0	4.9
Q607, 608	0	0	-11.1	Q814	4.9	0	4.9
Q609	0	0	0.7	Q815	4.9	0	4.9
Q610	0	0	-11.1	Q816	4.9	0	4.9
Q701	0	0	-11.1	Q817	0	4.6	0
Q702	-19.8	-19.8	-19.1	Q818	4.6	0	4.6
Q703	-19.8	-19.8	-19.1	Q819	0	4.9	0
Q704	-28.2	-31.2	-28.9	Q820	0	3.5	0
Q705	5.7	15	6.2	Q821	0	4.9	0
Q706	1.9	1.8	0	Q825	3.5	3.5	0
Q707	0	0	1.9	Q828	-12.2	12.1	-12.2
Q708	-20.7	-20.2	1.2	Q829	12.1	-12.2	12.1
Q709	20.7	20.3	0	Q830	0	12.1	0
Q710	4.3	4.3	0	Q831	5.6	0	5.6
Q711	4.8	4.8	0	Q832	0	5.6	0
Q712	-12.2	-12.1	4.3	Q833	0	0	4.8
Q713	-12.2	-12.1	4.8	Q834	4.9	4.8	0

IC 21

PIN NO.	DESCRIPTION	VOLTAGE
1	NGC1	4.0
2	LOUT	4.0
3	ROUT	4.0
4	CT	4.0
5	COUT	4.0
6	ST	4.0
7	SOUT	4.0
8	CMC	4.0
9	SMRO	4.0
10	SMRI	4.0
11	AGND	0
12	MIC IN	3.9
13	DVDD	4.8
14	TEST CNT	0
15	DATA	4.6
16	SCK	4.4
17	REQ	4.4
18	LO1	0
19	LO2	0
20	LO3	0
21	XIN	XIN
22	XOUT	XOUT
23	DVSS	0
24	AVSS	0
25	AVDD	3.9
26	VREFD	1.9
27	MIX OUT	4.0
28	DELAY IN	1.9
29	LPF1 IN1	1.9
30	LPF1 IN2	1.9
31	LPF1 OUT	1.9
32	AD INT IN	0.6
33	AD INT OUT	3.7
34	AD CONT	3.6
35	DA CONT	0
36	DA INT IN	1.9
37	DA INT OUT	1.9
38	LPF2 IN1	1.9
39	LPF2 IN2	1.9
40	LPF2 OUT	1.9
41	VOL OUT	1.9
42	DELAY SIG IN	4.0
43	DELAY SIG OUT	4.0
44	FBIN EC	4.0
45	FBIN SU	4.0
46	SOUT	4.0
47	DBIN	4.0
48	LPIN	4.0
49	DBC1	4.0
50	DBC2	4.0
51	DBC3	0
52	PCS3	3.6
53	PCS6	4.0
54	PCS2	3.6
55	PCS3	3.9
56	PCS1	3.6

IC 21

PIN NO.	DESCRIPTION	VOLTAGE
57	PCS4	4.0
58	RLC5	3.8
59	RLC2	4.0
60	RLC1	4.0
61	RLC4	3.9
62	RLC7	3.9
63	RLC3	4.0
64	RLC8	4.0
65	RLC6	3.8
66	LLI	4.0
67	LBPF	4.0
68	RLI	4.0
69	RBPF	4.0
70	LT	4.0
71	RT	4.0
72	LIN	4.0
73	RIN	4.0
74	HOLDC	4.4
75	AVCC	9.2
76	VREFA	4.0
77	VREFG	4.0
78	IREF	1.2
79	NGC3	2.5
80	NGC2	4.1

IC 13, 14

PIN NO.	DESCRIPTION	VOLTAGE
1	VEE	-12.2
2	L1/L1	0
3	L2/L2	0
4	L3/L3	0
5	L4/LCOM1	0
6	LCOM1/L4	0
7	L5/L5	0
8	L6/L6	0
9	LCOM2/LCOM2	0
10	L7/L7	0
11	L8/L8	0
12	LCOM3/LCOM3	0
13	STROBE	STROBE
14	GND	0
15	CK	CK
16	DATA	DATA
17	RCOM3/RCOM3	0
18	R8/R8	0
19	R7/R7	0
20	RCOM2/RCOM2	0
21	R6/R6	0
22	R5/R5	0
23	RCOM1/R4	0
24	R4/RCOM1	0
25	R3/R3	0
26	R2/R2	0
27	R1/R1	0
28	VDD	12.1

IC11,12,22,23,24,25,26,82,86

PIN NO.	DESCRIPTION	VOLTAGE
1	A OUTPUT	0
2	A -INPUT	0
3	A +INPUT	0
4	VEE	-11.7
5	B +INPUT	0
6	B -INPUT	0
7	B OUTPUT	0
8	VCC	11.6

IC15, 88

PIN NO.	DESCRIPTION	VOLTAGE
1	IN/OUT 1	0/0
2	OUT/IN 1	0/0
3	OUT/IN 2	0/0
4	IN/OUT 2	0/0
5	CONT 2	11.8/11.8
6	CONT 3	11.8/11.8
7	VSS	-12.2/-12.2
8	IN/OUT 3	0/0
9	OUT/IN 3	0/0
10	OUT/IN 4	0/0
11	IN/OUT 4	0/0
12	CONT 4	11.8/-12
13	CONT 1	11.8/-12
14	VCC	12/12

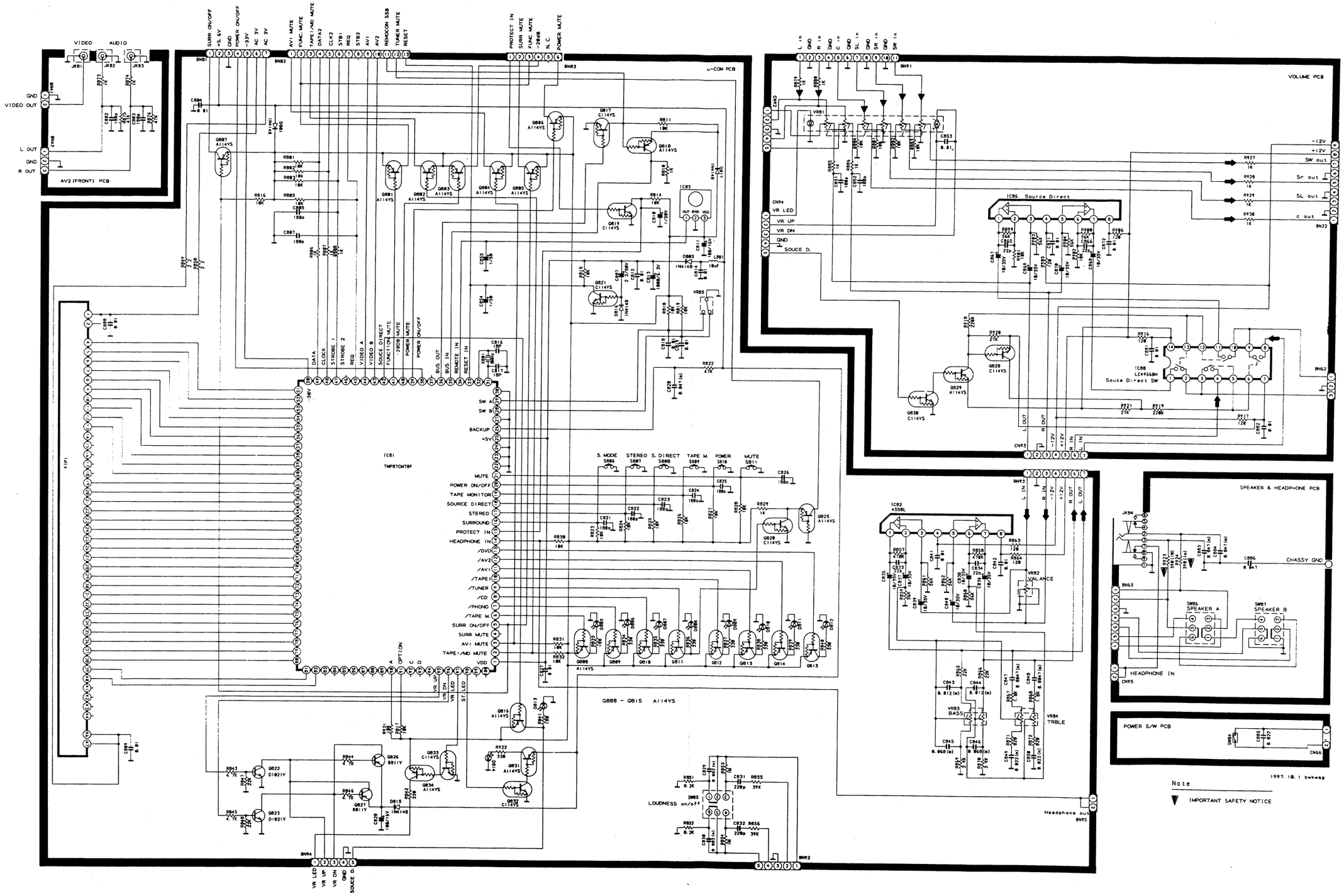
IC 41

PIN NO.	DESCRIPTION	VOLTAGE
1	VIN 3	0
2	SW 1	0
3	VIN 2	0
4	MUTE 2	0
5	VOUT 2	0
6	GND	0
7	GND	0
8	V+	5.5
9	N.C	0
10	VOUT 1	0
11	MUTE 1	0
12	VIN 1	0
13	SW 2	0
14	V-	-5.5

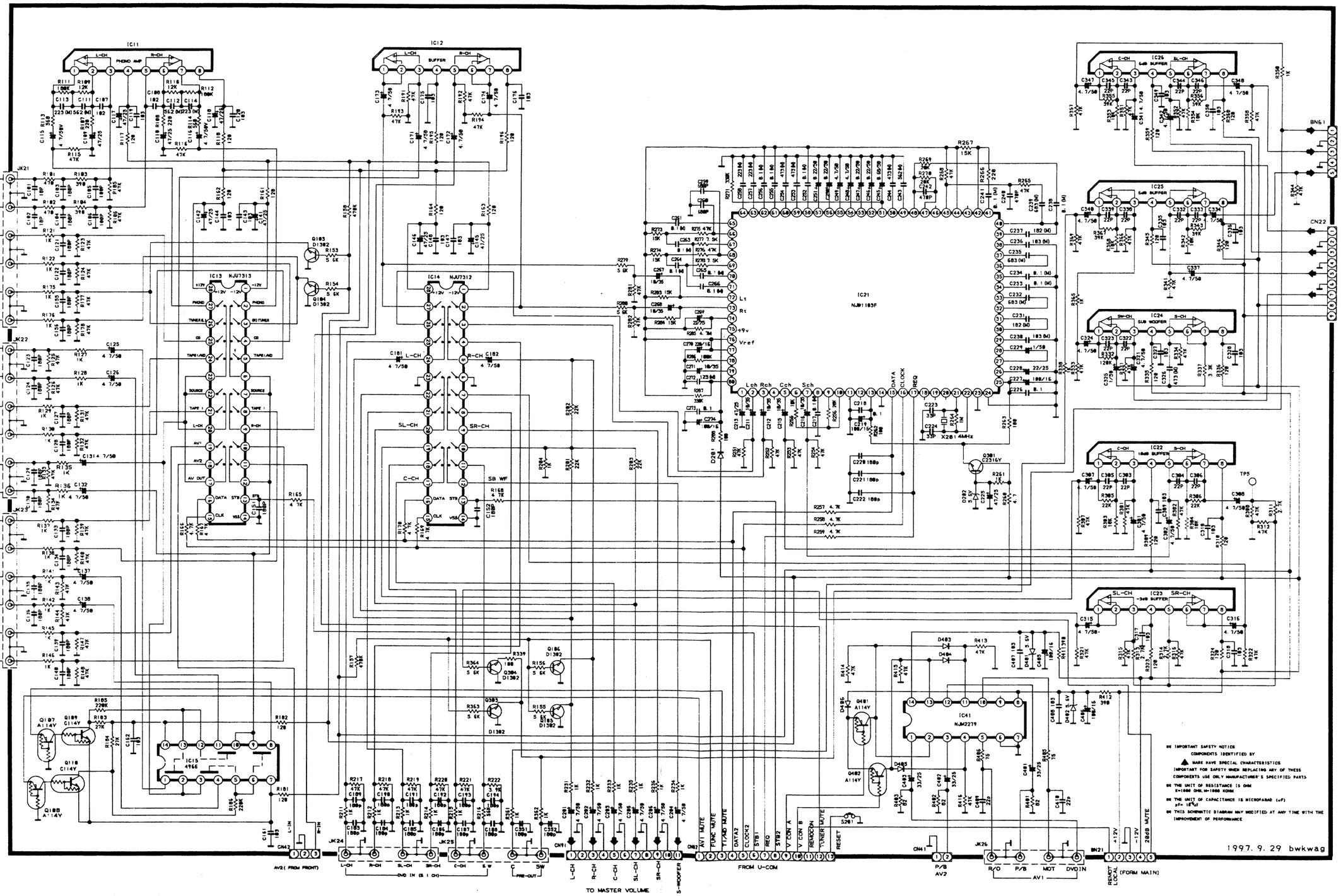
IC 83

PIN NO.	DESCRIPTION	VOLTAGE
1	VOUT	5
2	GND	0
3	VCC	5

SCHEMATIC DIAGRAM



AM-V1200 INPUT SCHEMATIC DIAGRAM



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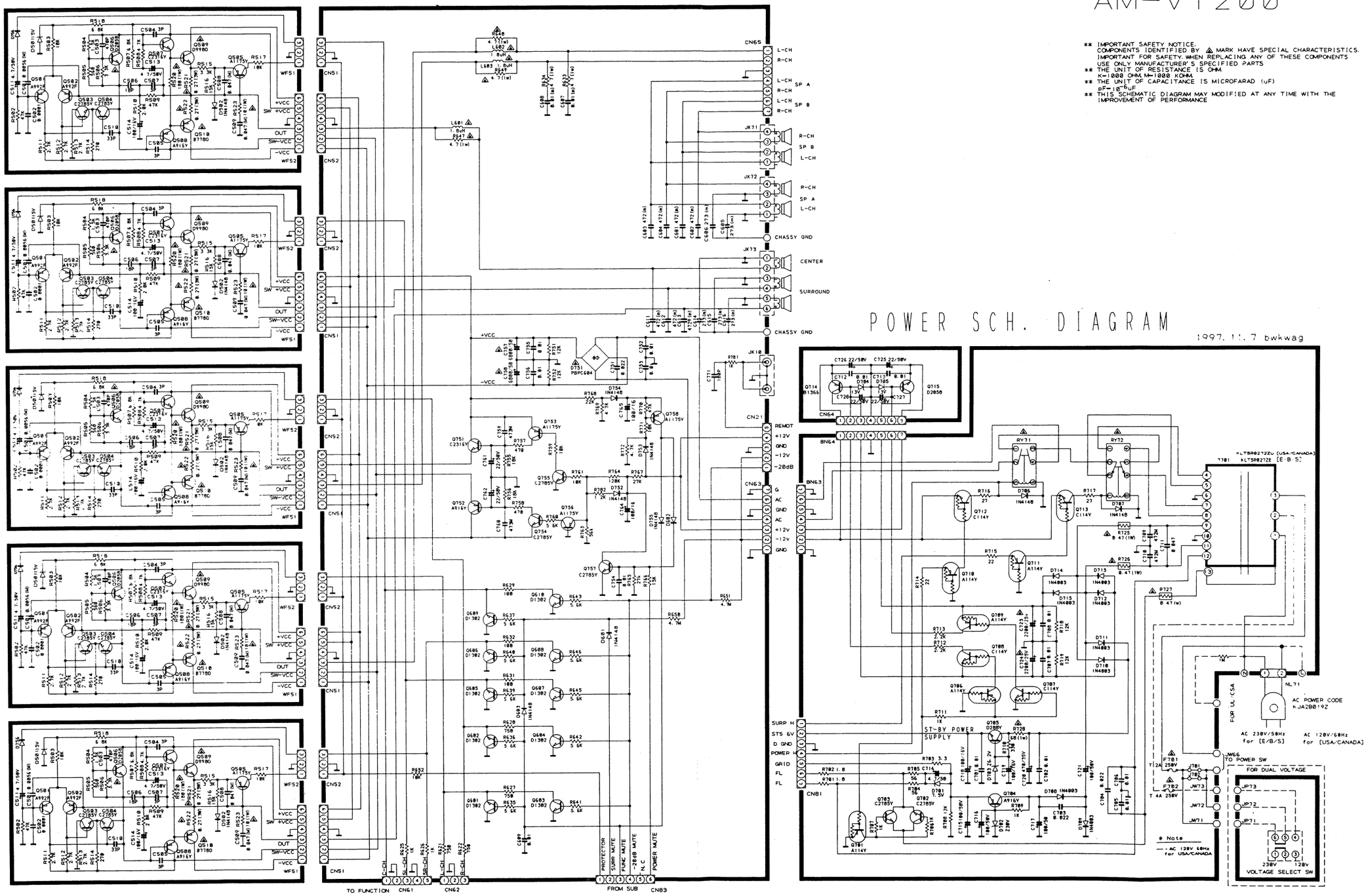
16

TR SCH. DIAGRAM



POWER SCH. DIAGRAM

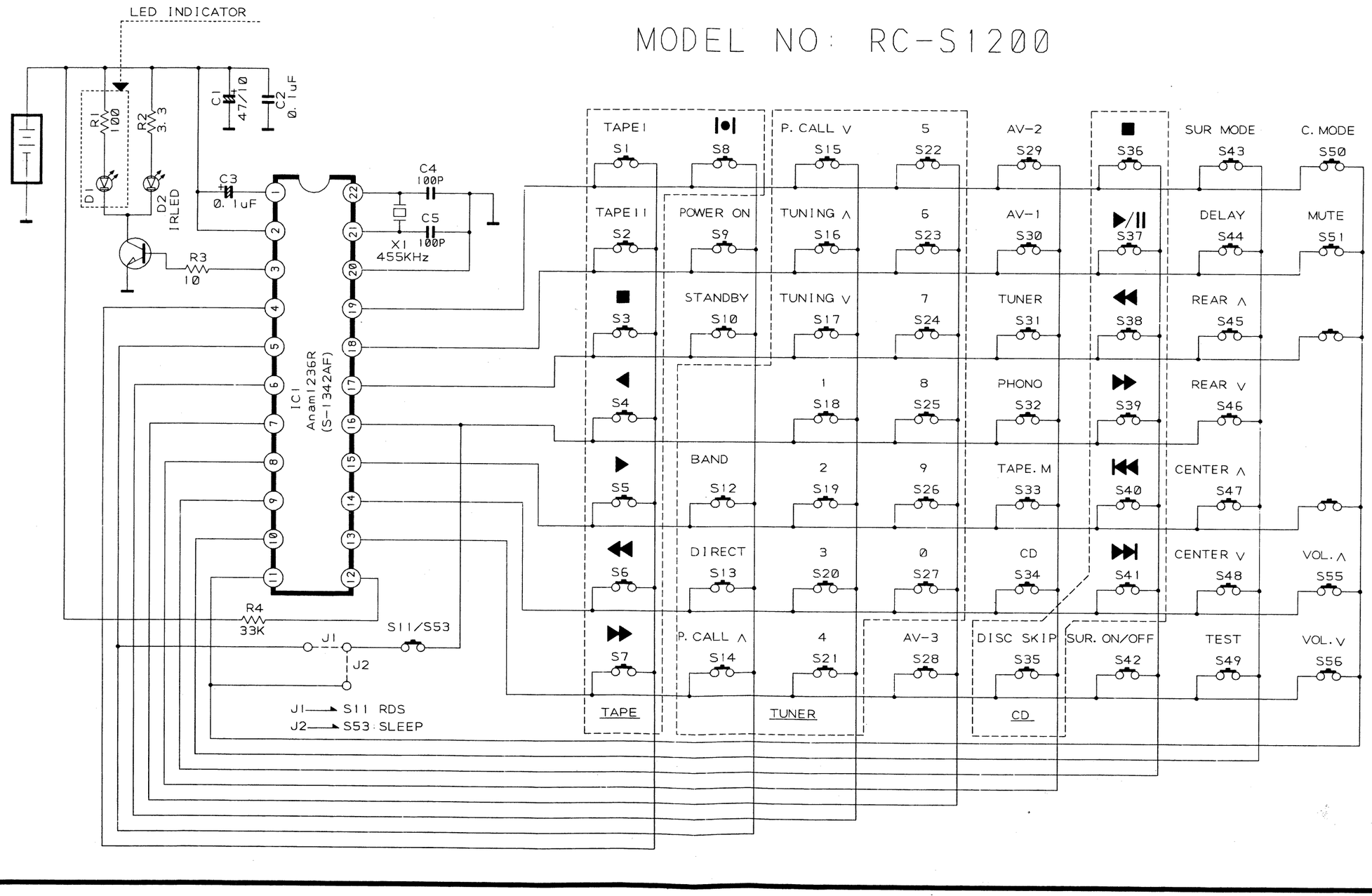
1997. 11. 7 bwkwag

AM-V1200

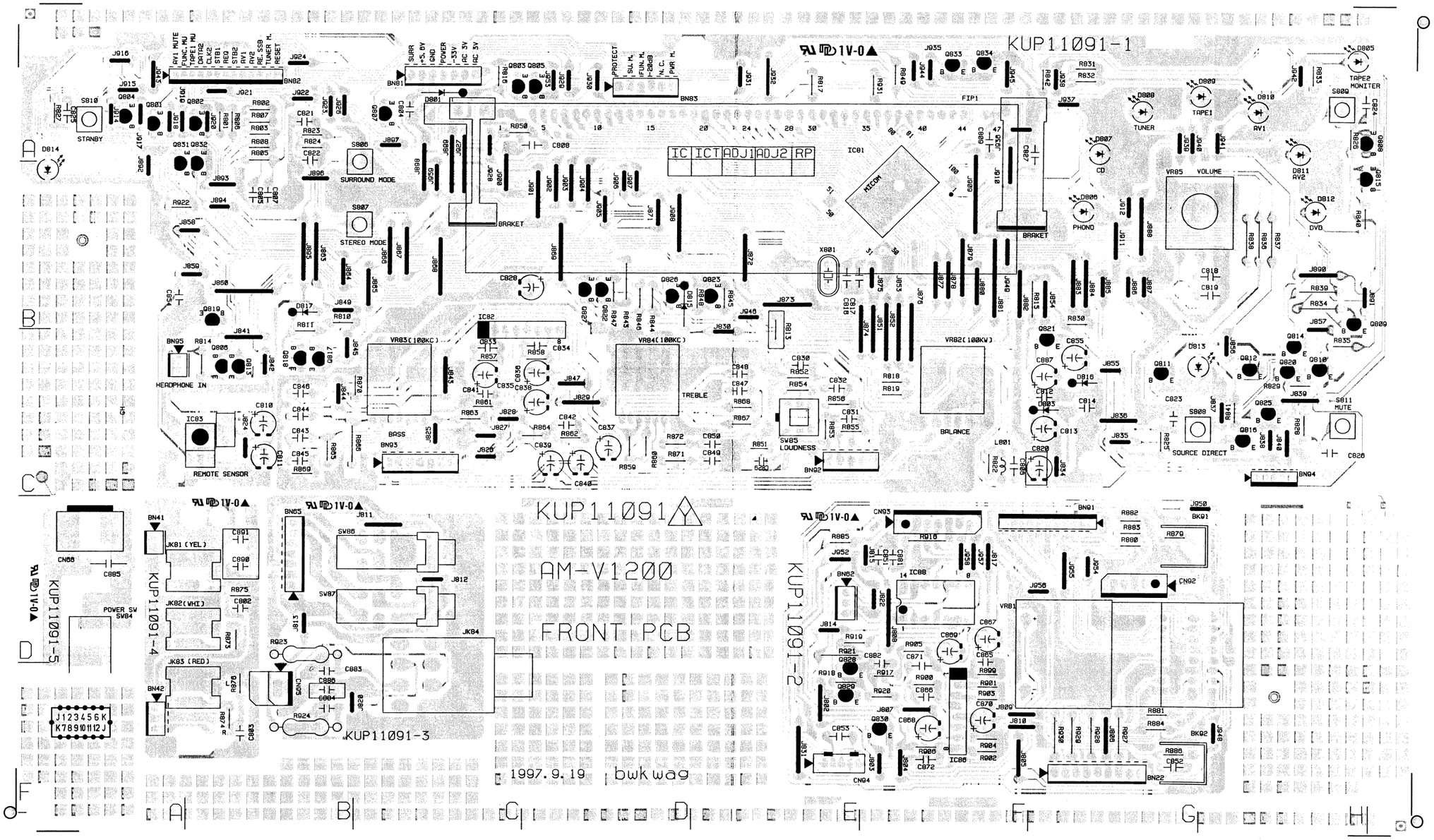
** IMPORTANT SAFETY NOTICE.
COMPONENTS IDENTIFIED BY ⚠ MARK HAVE SPECIAL CHARACTERISTICS.
IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS
USE ONLY MANUFACTURER'S SPECIFIED PARTS
** THE UNIT OF RESISTANCE IS OHM.
K=1000 OHM, M=1000 KOHM.
** THE UNIT OF CAPACITANCE IS MICROFARAD (uF)
pF=10^{-6}uF
** THIS SCHEMATIC DIAGRAM MAY MODIFIED AT ANY TIME WITH THE
IMPROVEMENT OF PERFORMANCE

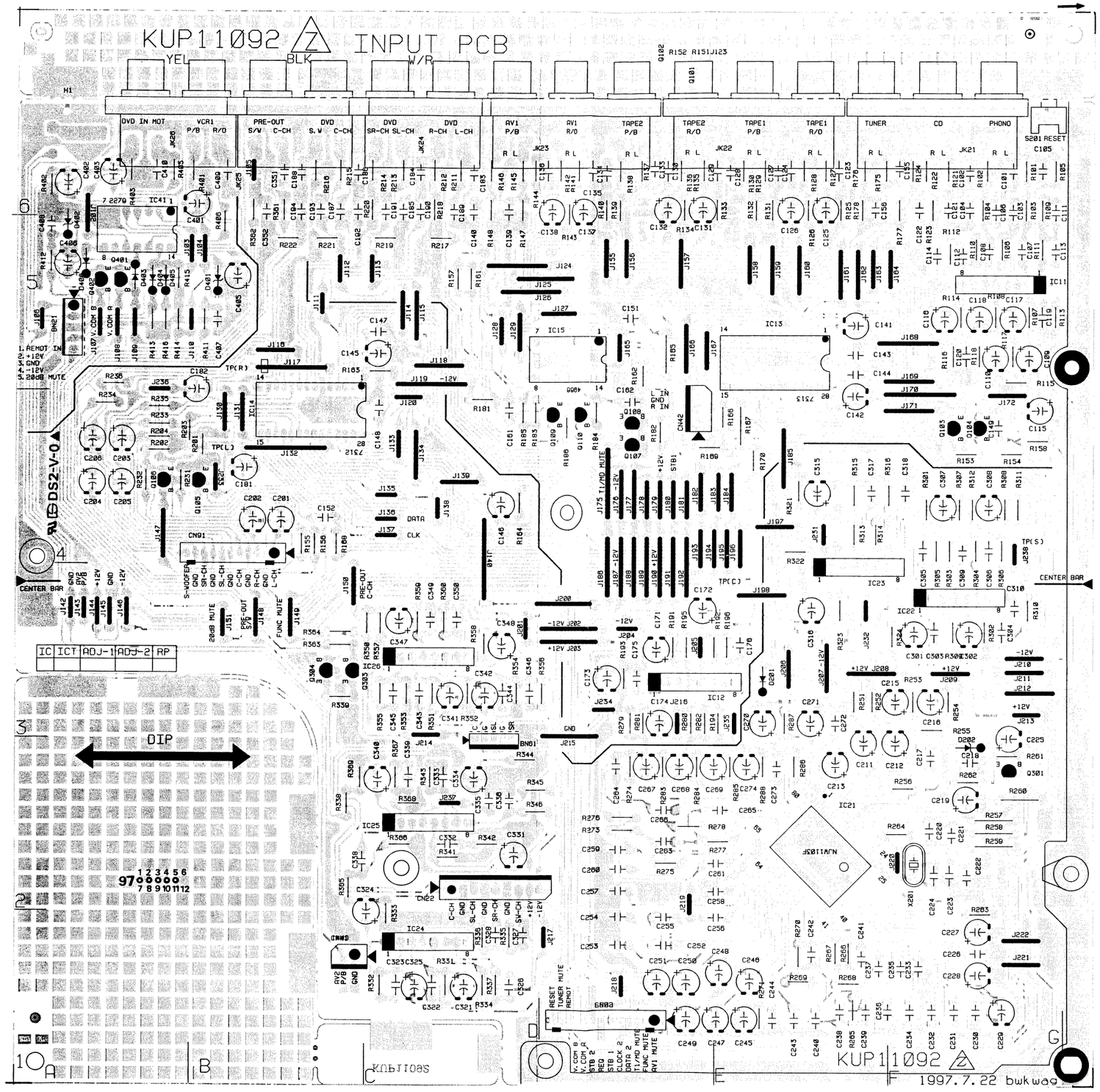
REMOTE CONTROL SCHEMATIC DIAGRAM

MODEL NO: RC-S1200



PRINTED CIRCUIT BOARDS

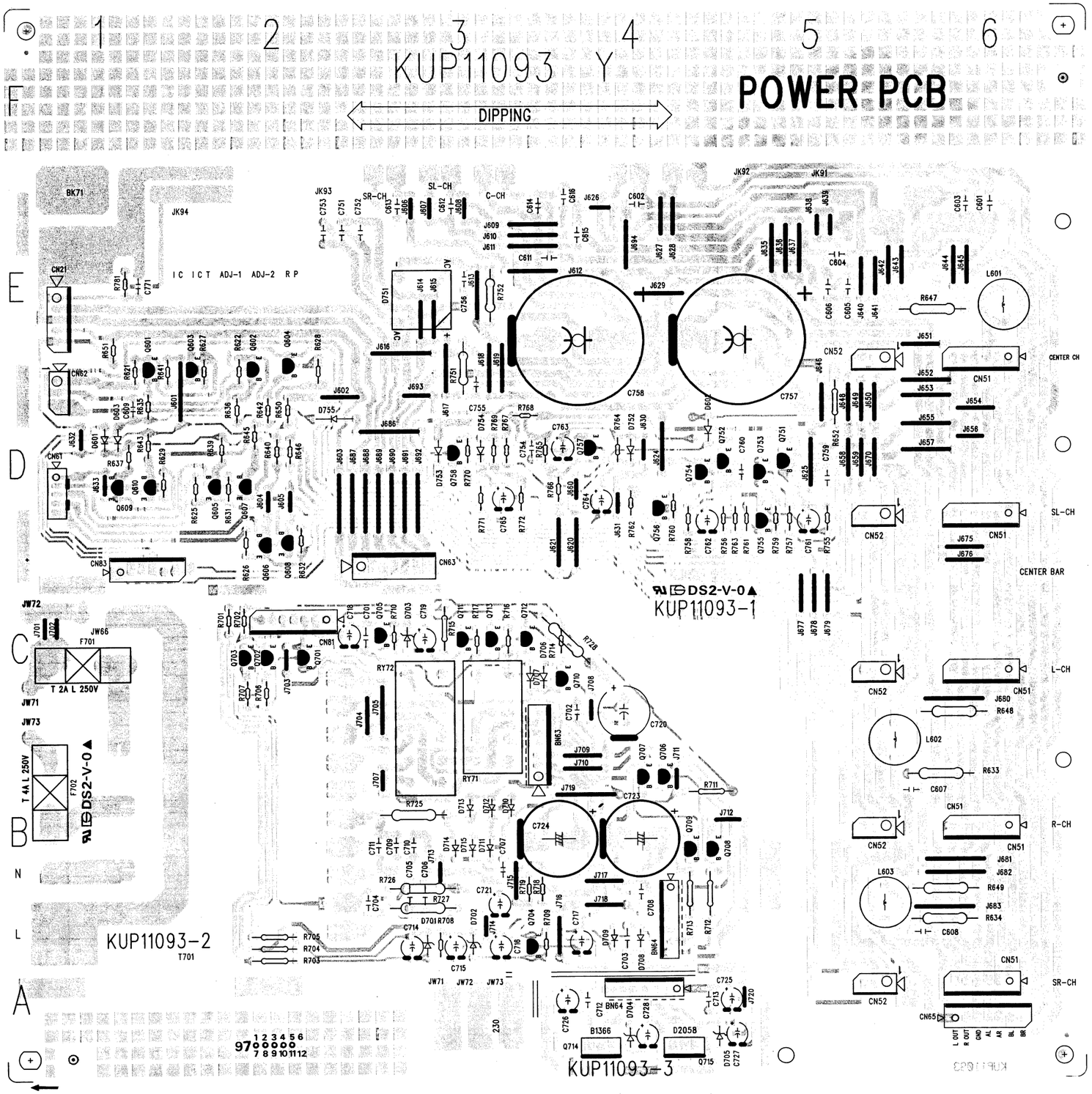


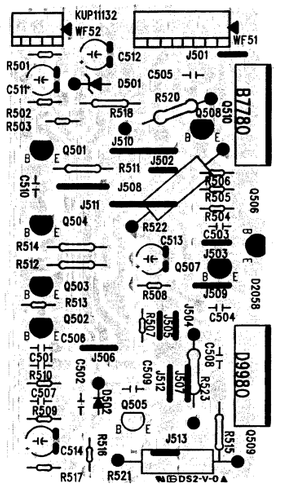

KUP1109Z INPUT PCB
YEL
BLK
W/R
DVD IN MOT
VCR1 P/B R/O
PRE-OUT S/W C-CH
DVD S.W C-CH
DVD SR-CH SL-CH
DVD R-CH L-CH
AV1 P/B
AV1 R/O
TAPE2 P/B
TAPE2 R/O
TAPE1 P/B
TAPE1 R/O
TUNER
CD
PHONO
S201 RESET
1.REMOT IN
2.+12V
3.GND
4.-12V
5.20dB MUTE
V.COM A
V.COM B
DS2-V-0
CN91
S-WOOFER
PRE-OUT C-CH
20dB MUTE
FUNC MUTE
CENTER BAR
DIP
IC
ICT
ADJ-1
ADJ-2
RP
DATA
CLK
RESET
TUNER MUTE
REMOT
KUP1109Z
1997.7.22 bwkwag

KUP11093 Y

POWER PCB

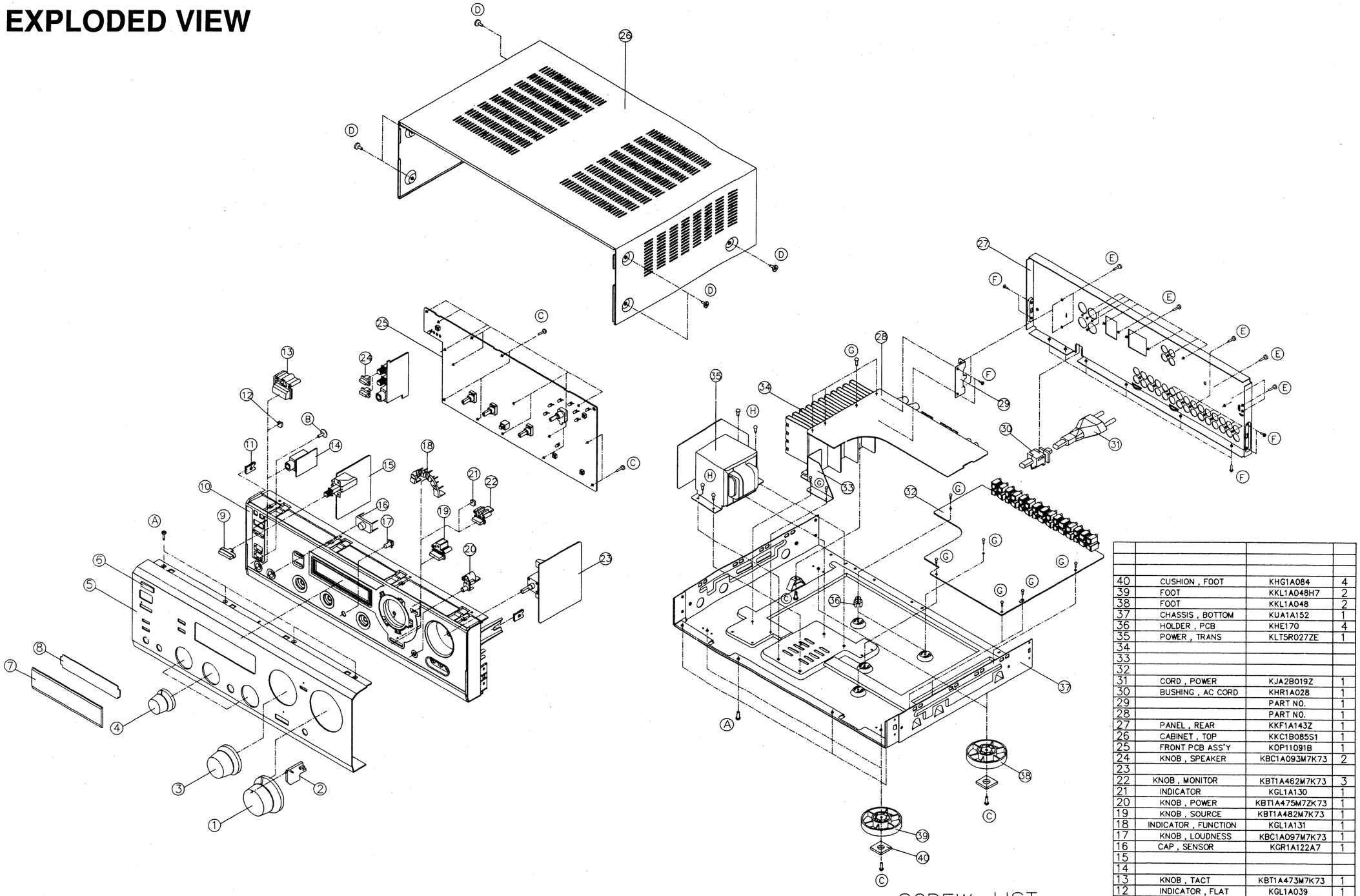
DIPPING





AM-V1200 TR F

EXPLODED VIEW



SCREW LIST

NO.	PART NO.	PART NAME	Q'TY
H	KTB4+10J	SCREW	4
G	KTW3+10G	SCREW	15
F	KTB3+6G	SCREW	11
E	KTB3+10GFZ	SCREW	20
D	KTB4+6FFZ	SCREW	4
C	KTB3+10G	SCREW	23
B	KTWS3+10G	SCREW	1
A	KTS3+10G	SCREW	8

NO.	PART NAME	PART NO.	Q'TY
40	CUSHION , FOOT	KHG1A084	4
39	FOOT	KKL1A048H7	2
38	FOOT	KKL1A048	2
37	CHASSIS , BOTTOM	KUA1A152	1
36	HOLDER , PCB	KHE170	4
35	POWER , TRANS	KLT5R027ZE	1
34			
33			
32			
31	CORD , POWER	KJA2B019Z	1
30	BUSHING , AC CORD	KHR1A028	1
29		PART NO.	1
28		PART NO.	1
27	PANEL , REAR	KKF1A143Z	1
26	CABINET , TOP	KKC1B085S1	1
25	FRONT PCB ASS'Y	KOP11091B	1
24	KNOB , SPEAKER	KBC1A093M7K73	2
23			
22	KNOB , MONITOR	KBT1A462M7K73	3
21	INDICATOR	KGL1A130	1
20	KNOB , POWER	KBT1A475M7ZK73	1
19	KNOB , SOURCE	KBT1A482M7K73	1
18	INDICATOR , FUNCTION	KGL1A131	1
17	KNOB , LOUDNESS	KBC1A097M7K73	1
16	CAP , SENSOR	KGR1A122A7	1
15			
14			
13	KNOB , TACT	KBT1A473M7K73	1
12	INDICATOR , FLAT	KGL1A039	1
11	U-NUT	KNE4060	2
10	PANEL , SUB	KGW1A210M8K73	1
9	KNOB , POWER	KBC1A094M7ZK73	1
8	FILTER , FIP	KMZ1A068	1
7	WINDOW , FIP	KGU1A169A6Z	1
6	BADGE	KGB1A045	1
5	FRONT PANEL	KKM1A069ZC16	1
4	KNOB , ROTARY	KBN1A076M7K73	3
3	KNOB , FUNCTION	KBN1A078M7K73	1
2	INDICATOR VOLUME	KGL1A132	1
1	KNOB , VOLUME	KBN1A077M7K73	1

PARTS LIST

ATTENTION

1. **When placing an order for parts, be sure to list the Part No., Model No. and the description of each part. Otherwise, the non-delivery of the part or the dellvery of a wrong part may result.**
2. **Please make sure that Part No. is correct when ordering. If not, a part different from the one you ordered may be delivered.**
3. **Since the parts shown in Parts List of Preliminary Service Manual may have been the subject of changes, please use this Parts List for all future reference.**

HOW TO USE THIS PARTS LIST

1. This Parts List lists those parts which are considered necessary for repairs. Other common parts, such as resistors and capacitors, are listed in the "Common List for Service Parts" from which these parts should be selected and stocked.
2. Parts not shown in the Parts List and "Common List for Service Parts" will not in principle be supplied.
3. How to read the Parts List.

■ Resistor and Capacitor

Notes : · Part numbers are indicated for most mechanical parts.
Please use this part number for parts order.
· IMPORTANT SAFETY NOTICE.
Components identified by ⚠ mark have special characteristics important for safety.
When replacing any of these components, use only manufacture's specified parts.
· The unit of resistance is OHM(Ω)
K=1000(Ω), M=1000(K Ω)
· The unit of capacitance is MICROFARAD(μF).
· P=10^{-6}μF

■ Numbering System of Resistor

Example

KRD	25	F	J	101
Type	Wattage	Shape	Tolerance	Value

Resistor Type	Wattage	Tolerance
KRD:Carbon	20:1/5W	F:=±1%
KRG:Metal Oxide	25:1/4W	J:=±5%
	50:1/2W	K:=±10%
	1:1W	
KRF:Metal Cement	2:2W	
	3:3W	

■ Numbering System of Capacitor

Example

KCKT	1H	101	K	B
Type	Voltage	Value	Tolerance	Peculiarity

Capacitor Type	Voltage		Tolerance
	ECEA Type	Other	
KCB:Ceramic	OJ:6.3V	1H:50V DC	C:±0.25pF
KCC:Ceramic	1A:10V	1:125V DC	G:±2%
KCK:Ceramic	1C:16V	KC:400V AC	J:±5%
KCFR:Semiconductor	1E:25V		K:±10%
KCQI:Polyester	1H:50V		Z:+80%, -20%
KCQP:Polypropylene	1V:35V		
KCQS:Polystyrol			

WARNING

⚠ (*) INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURE'S RECOMMENDED PARTS.

AVERTISSEMENT

⚠ (*) IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉDE L'APPAREIL, NE REMPLACER QUE DES PIÉCES RECOMMANDEES PAR LÉ FABRICANT.

■ ELECTRICAL PARTS LIST

P. C BOARD BLOCK PART NO.

Part No.	Description
1. KOP11091	FRONT PCB ASS'Y
2. KOP11092	INPUT PCB ASS'Y
3. KOP11093	POWER PCB ASS'Y
4. KOP11132	TR PCB ASS'Y

FRONT PCB BLOCK CONSISTS OF FOLLOWING P. C. B
- * μ-COM P.C. BOARD
- * MASTER VR P.C. BOARD
- * SP SWITCH P.C. BOARD
- * AV2 INPUT P.C. BOARD
- * POWER SWITCH P.C. BOARD

INPUT PCB BLOCK CONSISTS FOLLOWING P. C. B
- * INPUT P.C. BOARD

POWER PCB BLOCK CONSISTS FOLLOWING P. C. B
- * POWER & AMP CONTROL P.C. BOARD
- * POWER SUPPLY P.C. BOARD
- * REGULATOR P.C. BOARD

AMP PCB BLOCK CONSISTS FOLLOWING P. C. B
- * AMP P.C. BOARD

1. FRONT PCB

REF NO.	PART NO.	DESCRIPTION
IC81	BVIANAM1231A	IC, μ-COM
IC82	BVINJM4558L	IC, OP AMP
IC83	BRVPIC12043	IC, SENSOR
IC86	BRVNJM4558L	IC, OP AMP
IC88	BVILC4966	IC, SWITCHING
Q801~Q816	KVTDTA114YST	T.R
Q817	KVTDTC114YST	T.R
Q818	KVTDTA114YST	T.R
Q819~Q821	KVTDTC114YST	T.R
Q822, 823	KVTKSD1021YT	T.R
Q825	KVTDTA114YST	T.R
Q826, 827	KVTKSB811YT	T.R
Q828	KVTDTC114YST	T.R
Q829	KVTDTA114YST	T.R
Q830	KVTDTC114YST	T.R
Q831	KVTDTA114YST	T.R
Q832, 833	KVTDTC114YST	T.R
Q834	KVTDTA114YST	T.R
D801	KVD1N4148T	DIODE
D803, 804	KVD1N4148MT	DIODE
D805~D813	KVD342MCF02T085	L.E.D, GREEN
D814	KVD342VCF02T085	L.E.D, RED
D815	KVD1N4148T	DIODE
D816	KVD1N4148MT	DIODE
BN22	KWZAMV1200BN22	WIRE ASS'Y
BN41	KWZAMV1200BN41	WIRE ASS'Y
BN42	KWZAMV1200BN42	WIRE ASS'Y
BN62	KWZAMV1200BN62	WIRE ASS'Y
BN65	KWZAMV1200BN65	WIRE ASS'Y
BN81	KWZAMV1200BN81	WIRE ASS'Y
BN82	KWZAMV1200BN82	WIRE ASS'Y
BN83	KWZAMV1200BN83	WIRE ASS'Y
BN91	KWZAMV1200BN91	WIRE ASS'Y
BN92	KWZAMV1200BN92	WIRE ASS'Y
BN93	KWZAMV1200BN93	WIRE ASS'Y
BN94	KWZAMV1200BN94	WIRE ASS'Y
BN95	KWZAMV1200BN95	WIRE ASS'Y
CN66	KJP02KA060ZY	WAFER
CN92	KJP05GA01ZM	WAFER
CN93	KJP07GA01ZM	WAFER
CN94	KJP05GB46ZM	WAFER
CN95	KJP02GB03ZM	WAFER
C885	KCKDKS222MKE	CAP, CERAMIC
FIP1	BFLFIP10HM7R	F.I.P
JK81	KJJ4M014Z	JACK, VCR
JK82	KJJ4M013Z	JACK, VCR
JK83	KJJ4M012Z	JACK, VCR
JK84	BJJ2E020Z	JACK, H.PHONE
L801	KLQ02C100KT	COIL
R923, 924	⚠ KRG1ANJ391H	RES, METAL OXIDE FILM
S806~S811	BST1A014ZT	SW, TACT
SW84	⚠ KSH1A001ZV	SW, PUSH (MOMS)
SW85	KSH2B003Z	SW, PUSH
SW86, 87	KSH2B017Z	SW, PUSH
VR81	BVVFB01B104Z	RES, VARIABLE
VR82	BVV1U01W104Y	RES, VARIABLE
VR83, 84	BVV2X01C104Y	RES, VARIABLE
VR85	BSR2A006Z	VR, ENCODER
X801	KOX08000E160C	CRYSTAL

2. INPUT PCB

REF NO.	PART NO.	DESCRIPTION
IC11, 12	BVINJM4558L	IC, OP AMP
IC13	BVINJU7313L	IC, FUNC. SEL
IC14	BVINJU7312L	IC, FUNC. SEL
IC15	BVILC4966	IC, SWITCHING
IC21	BVINJW1103F	IC, DOLBY
IC23~IC26	BVINJM4558L	IC, OP AMP
IC41	BVINJM2279D	IC, VIDEO
Q101~Q106	KVTKTD1302T	T.R
Q107, 108	KVTDTA114YST	T.R
Q109, 110	KVTDTC114YST	T.R
Q301	KVTKSC2316YT	T.R

REF NO.	PART NO.	DESCRIPTION
Q303, 304	KVTKTD1302T	T.R
Q401, 402	KVTDTA114YST	T.R
D201	KVD1N4148MT	DIODE
D202, 401	KVDMTZJ5.6BT	DIODE, ZENER
D402		
D403~D406	KVD1N4148MT	DIODE
BN21	KWZAMV1200BN21	WIRE ASS'Y
BN62	KWZAMV1200BN62	WIRE ASS'Y
CN22	KJP09GA01ZM	WAFER
CN41	KJP02GA01ZM	WAFER
CN42	KJP03GA01ZM	WAFER
CN82	KJP13GA47ZG	WAFER
CN91	KJP11GA47ZG	WAFER
JK21~JK23	KJJ4R012Z	TERMINAL, IN/OUT
JK24	KJJ4P014Z	JACK, IN/OUT
JK25	KJJ4P023Z	JACK, IN/OUT
JK26	KJJ4P020Z	JACK, BOARD
S201	KST1A010Z	SW, RESET
X201	BVFZTA4.00MG	RESONATOR, CERAMIC

3. POWER PCB

Q601~Q610	KVTKTD1302T	T.R
Q701	KVTDTA114YST	T.R
Q702, 703	KVTKSC2785YT	T.R
Q704	KVTKSA916YT	T.R
Q705	KVTKSD288Y	T.R
Q706	KVTDTA114YST	T.R
Q707, 708	KVTDTC114YST	T.R
Q709~Q711	KVTDTA114YST	T.R
Q712, 713	KVTDTC114YST	T.R
Q714	KVTKTB1366Y	T.R
Q715	KVTKTD2058Y	T.R
D601, 602	KVD1N4148MT	DIODE
D701	KVDMTZJ7.5AT	DIODE, ZENER
D702	KVDMTZJ30BT	DIODE, ZENER
D703	KVDMTZJ6.2BT	DIODE, ZENER
D704, 705	KVDMTZJ13BT	DIODE, ZENER
D706, 707	KVD1N4148MT	DIODE
D708~D715	KVD1N4003ST	DIODE, RECT.
D751	⚠ BVDPBPC604F	DIODE, BRIDGE
D752~D755	KVD1N4148MT	DIODE
BN63	KWZAMV120063	WIRE ASS'Y
BN64	KWZAMV120064	WIRE ASS'Y
CN21	KJP05GB03ZM	WAFER
CN51	KJP06GA63ZY	WAFER
CN52	KJP03GA63ZY	WAFER
CN61	KJP05GB46ZM	WAFER
CN62	KJP03GB03ZM	WAFER
CN63	KJP06GA01ZM	WAFER
CN64	KJP07GA01ZM	WAFER
CN65, 81	KJP07GB03ZM	WAFER
CN83	KJP06GB03ZM	WAFER
C723, 724	⚠ KCEA1EH222E	CAP, ELECT
C757, 758	⚠ KCETS50V682	CAP, ELECT
JK91	KJJ5P012Z	TERMINAL, SPEAKER
JK92	KJJ5P013Z	TERMINAL, SPEAKER
JK93	KJJ5R003Z	TERMINAL, SPEAKER
JK94	KJJ4N010Z	JACK, BOARD
L601~L603	⚠ KLEYK1R8A	COIL
RY71	⚠ BSL4A004ZM	RELAY
RY72	⚠ KSL4B003ZW	RELAY
R725~R727	⚠ KRQ1AJR47H	RES, FUSE
R728, 729	⚠ KRQ1AJ100H	RES, FUSE
R751, 752	KRD50FJ123T	RES, CARBON

4. TR PCB

Q501, 502	KVTKSA916FT	T.R
Q503, 504	KVTKSC2785YT	T.R
Q505	KVTKSA1175YT	T.R
Q506	⚠ KVTKTD2058Y	T.R
Q507	KVTKSC2316YT	T.R
Q508	KVTKSA916YT	T.R
Q509	⚠ KVTKTD998O	T.R
Q510	⚠ KVTKTB778O	T.R
D501	KVDUZ15BMT	DIODE, ZENER
D502	KVD1N4148MT	DIODE
R520	⚠ KRG1ANJ181H	RES, METAL OXIDE FILM
R521, 522	⚠ KRF3CJR27H	RES, CEMENT
R523	⚠ KRG1ANJ100H	RES, METAL OXIDE FILM
WF51	KJP06HB60ZY	HOUSING, ANGLE
WF52	KJP03HB60ZY	HOUSING, ANGLE

5. OTHERS

	KJA2B019Z	CORD, POWER [FOR E/B/S]
	KLT5R027ZE	TRANS, POWER [FOR E/B/S]
T701	⚠ KLT5R027ZU	TRANS, POWER [FOR E/B/S]
F701	⚠ KBA2C2000TLE	FUSE [2A 250V]
F702	⚠ KBA2C4000TLU	FUSE [4A 250V]
	KUR038ANA	REMOCON TRANSMITTER ASS'Y

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